



Total Solution Provider in Saw Device

SD-2140T2-C45

Band 1, SAW Duplexer(Rx Single Port)

Revision 1: September 2015



- Electrical Characteristics
 - Package Dimensions
 - Testing Environment
 - Frequency Characteristics
-

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□ Electrical Characteristics

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-30	-	+85
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	0		
Input Power at Tx Port	dBm	29dBm, Ta=+50°C, >50kh, CW		
Antenna Impedance(single ended)	Ω	50//3.3nH		
Tx Impedance(single ended)	Ω	50//4.3nH		
Rx Impedance(single ended)	Ω	50//7.5nH		
Package type		C45		
Length x Width	mm ²	2.0 x 1.6		
Height	mm	0.6		



Electrical Specification

Tx to Ant		Specifications				Remarks
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum	
Insertion Loss	1920.48 ~ 1979.52	dB	-	1.9	2.2	
Ripple	1920.0 ~ 1980.0	dB _{p-p}	-	0.6	1.0	
VSWR of Ant Port	1920.0 ~ 1980.0	-	-	1.5	2.0	
VSWR of Tx Port	1920.0 ~ 1980.0	-	-	1.5	2.0	
Attenuation	420.0 ~ 494.0	dB	44	60	-	
	843.0 ~ 894.0	dB	30	42	-	
	1565.42 ~ 1573.374	dB	38	43	-	
	1573.374 ~ 1585.42	dB	40	45	-	
	1597.5515 ~ 1605.886	dB	40	50	-	
	1605.886 ~ 1805.0	dB	25	40	-	
	1805.0 ~ 1865.0	dB	15	27	-	
	1865.0 ~ 1880.0	dB	10	20	-	
	2010.0 ~ 2025.0	dB	18	21	-	+15 to +85℃
	2110.0 ~ 2170.0	dB	38	42	-	
	2400.0 ~ 2500.0	dB	36	42	-	
	3840.0 ~ 3960.0	dB	10	22	-	

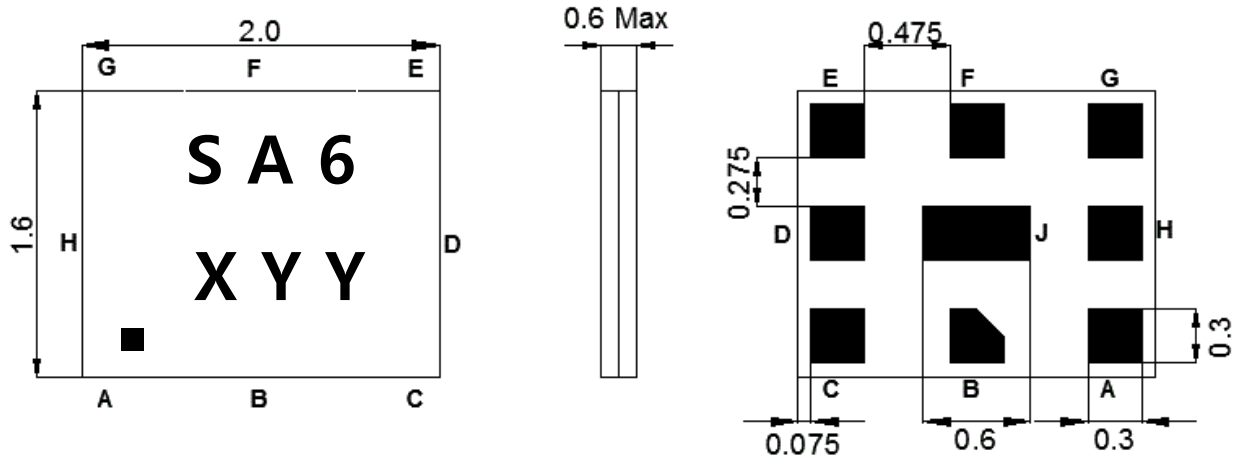


Ant to Rx		Specifications				Remarks
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum	
Insertion Loss	2110.0 ~ 2170.0	dB	-	1.9	2.5	
Ripple	2110.0 ~ 2170.0	dB _{p-p}	-	0.5	1.2	
VSWR of Ant Port	2110.0 ~ 2170.0	-	-	1.5	2.0	
VSWR of Rx Port	2110.0 ~ 2170.0	-	-	1.7	2.1	
Attenuation	190.0	dB	50	75	-	
	814.0 ~ 849.0	dB	40	65	-	
	880.0 ~ 915.0	dB	40	63	-	
	1447.0 ~ 1463.0	dB	40	49	-	
	1730.0 ~ 1790.0	dB	40	55	-	
	1920.0 ~ 1980.0	dB	45	50	-	
	2015.0 ~ 2075.0	dB	13	17	-	
	2400.0 ~ 2500.0	dB	40	46	-	
	4030.0 ~ 4150.0	dB	40	51	-	
	4220.0 ~ 4340.0	dB	40	51	-	
	4340.0 ~ 6000.0	dB	15	48	-	
	4900.0 ~ 5950.0	dB	40	47	-	
	5950.0 ~ 6130.0	dB	40	48	-	
	6130.0 ~ 6330.0	dB	35	48	-	
6330.0 ~ 6510.0	dB	35	48	-		

Tx to Rx		Specifications				Remarks
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum	
Isolation	1920.0 ~ 1980.0	dB	53	56	-	
	2110.0 ~ 2170.0	dB	50	55	-	

Notes : (1) With Matching Network

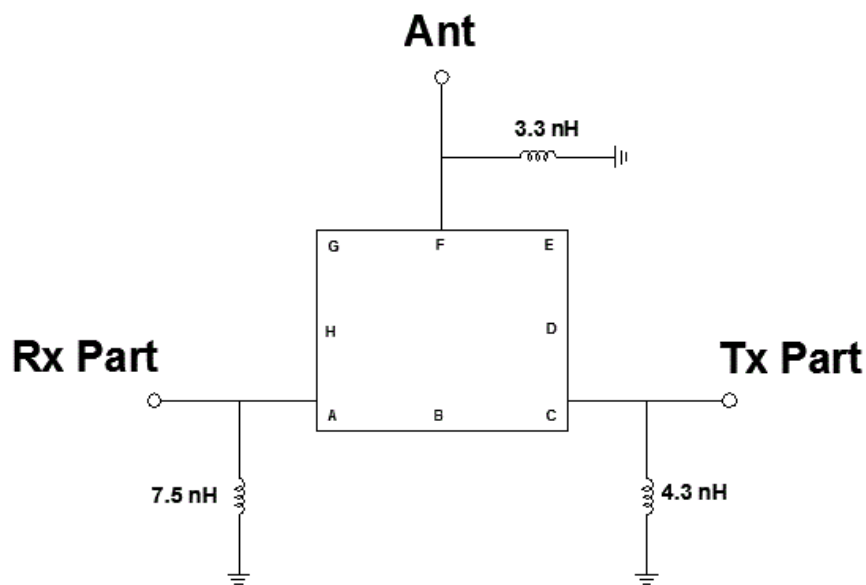
Package Dimensions



Marking Descriptions	
S	SAWNICS
A6	Series Number
X	Date Code(Year+Month)
YY	Lot No

Pin Description	
B,D,E,G,H,J	Ground
F	Ant
C	Tx (1950.0MHz)
A	Rx (2140.0MHz)

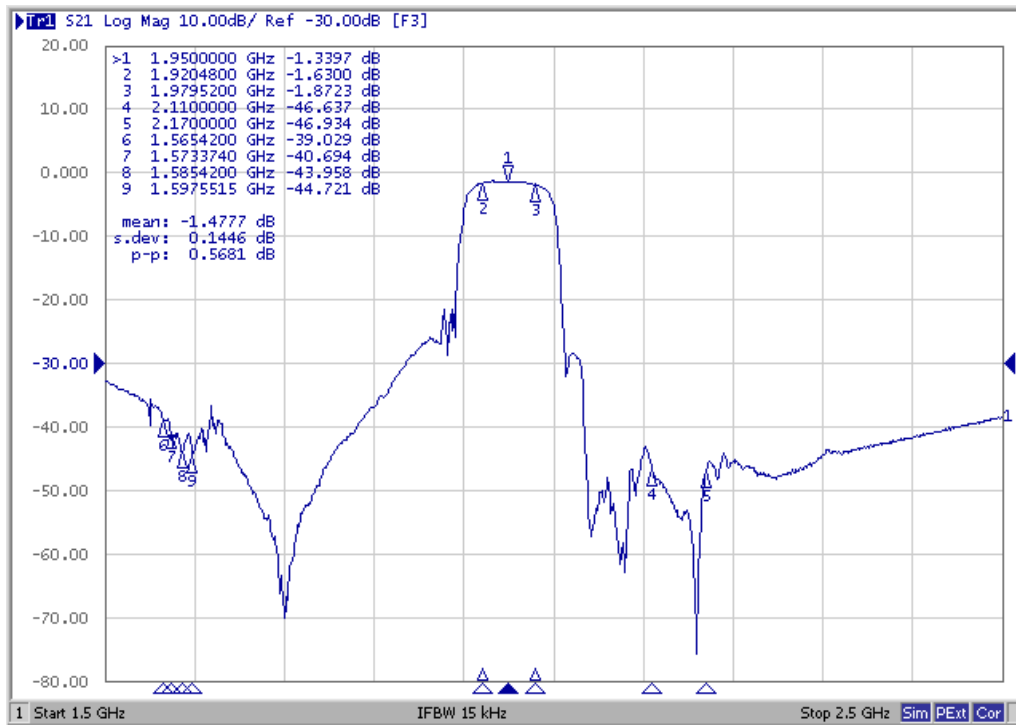
Testing Environment



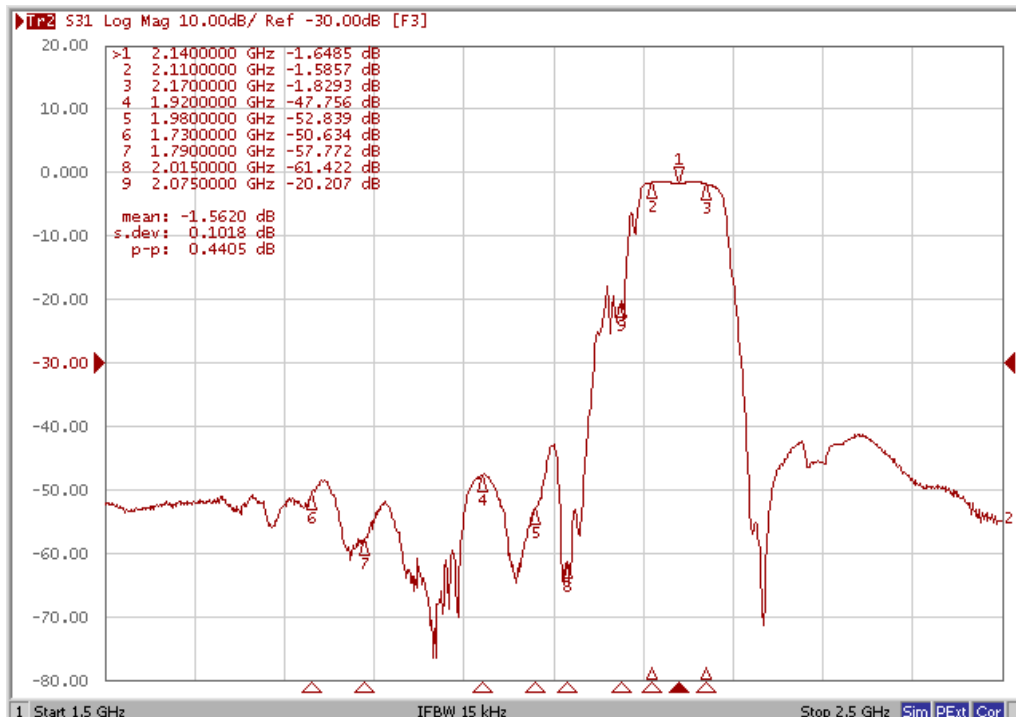


Frequency Characteristics

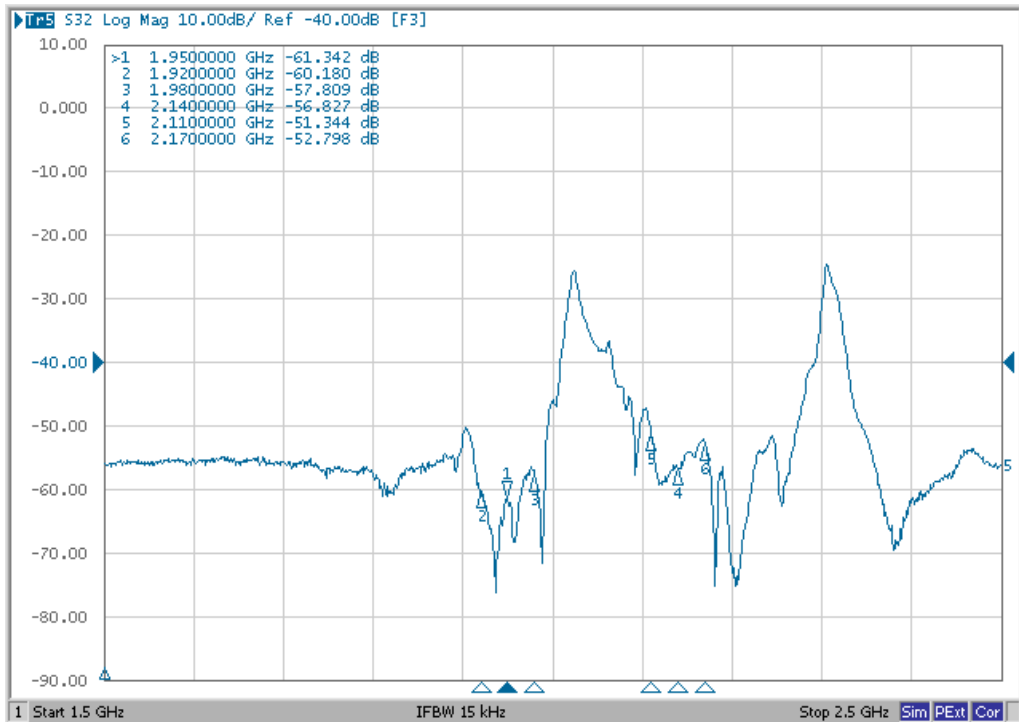
Tx to Ant



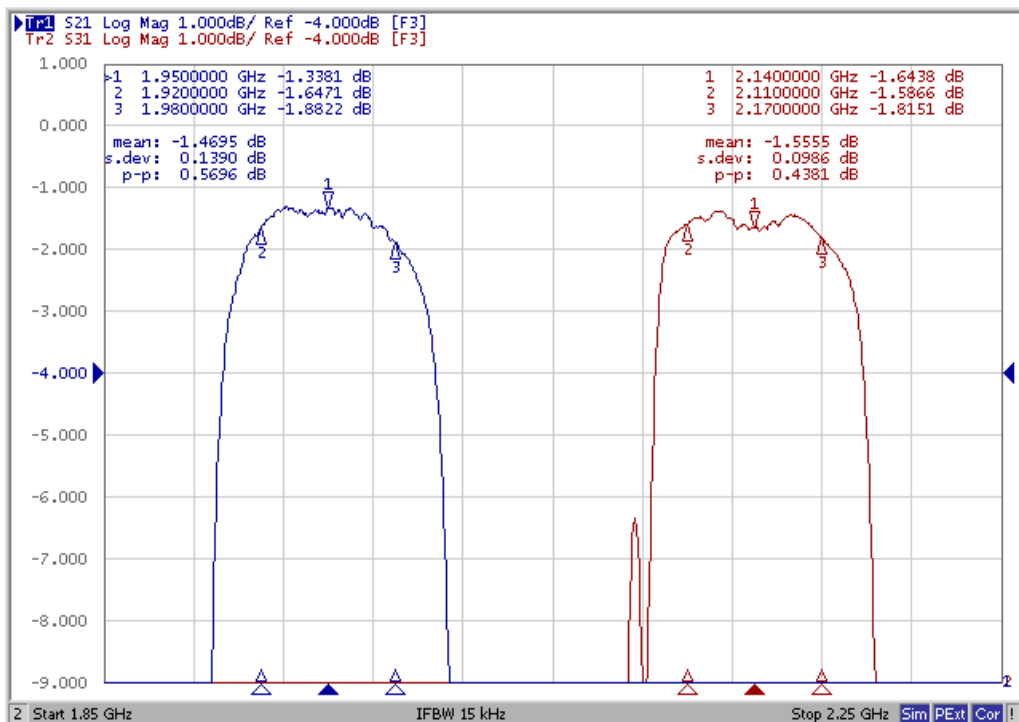
Ant to Rx



Isolation

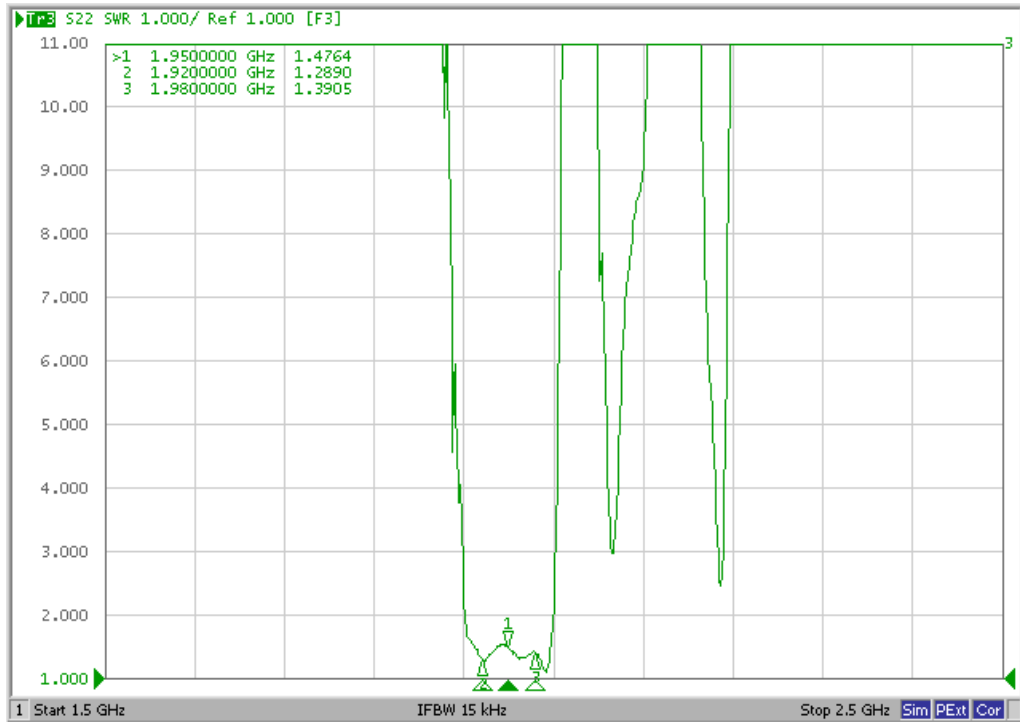


Ripple

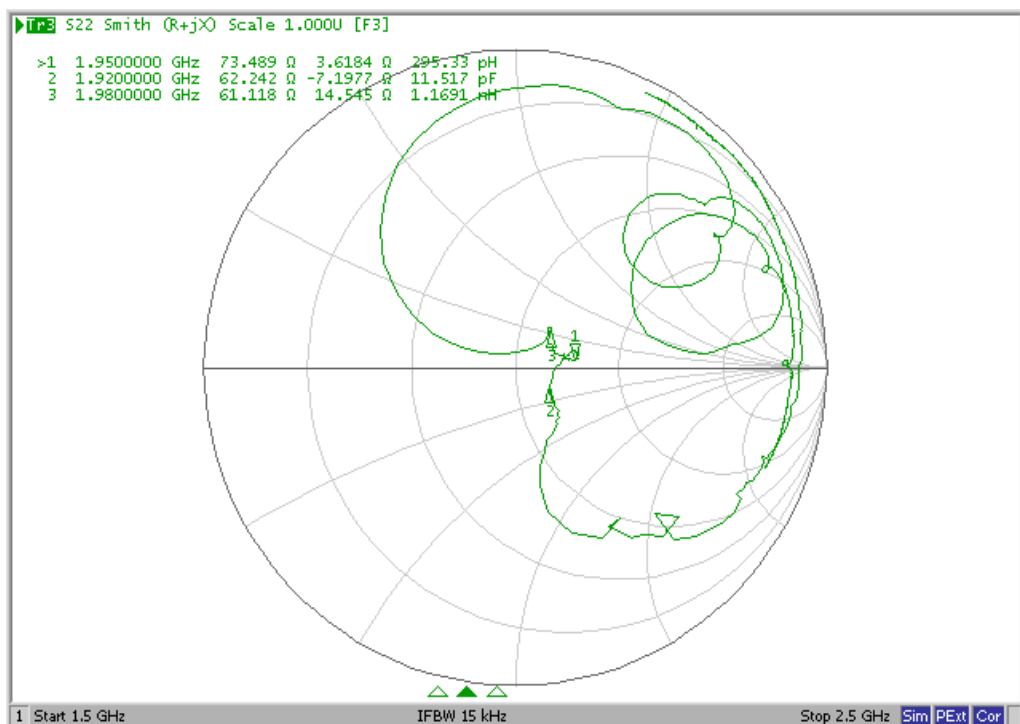




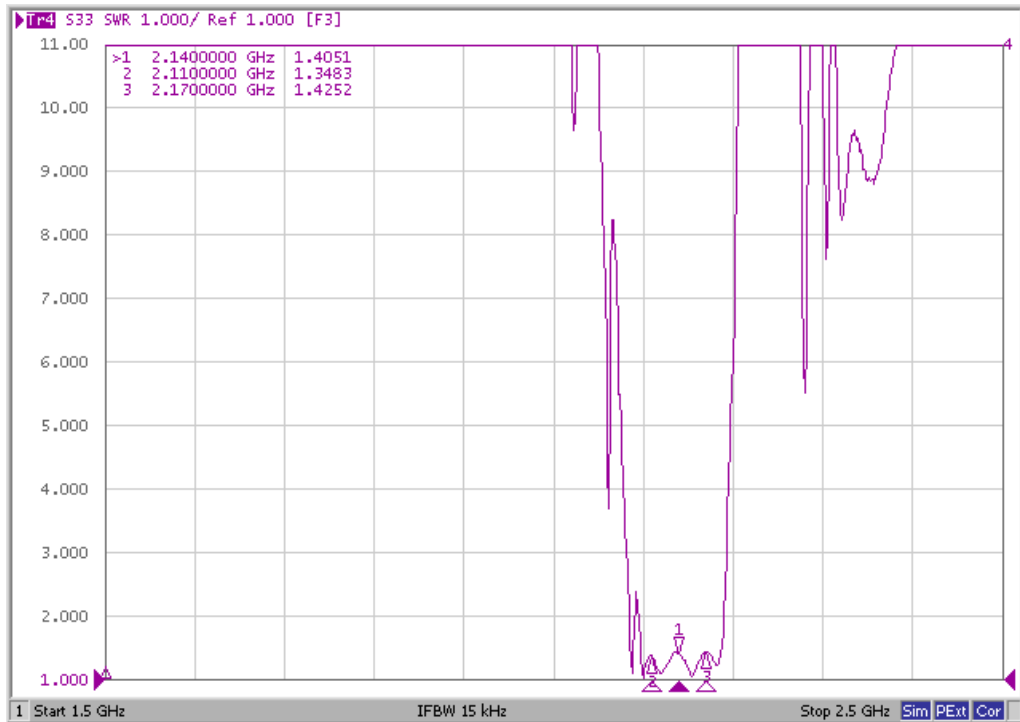
VSWR (Tx Port)



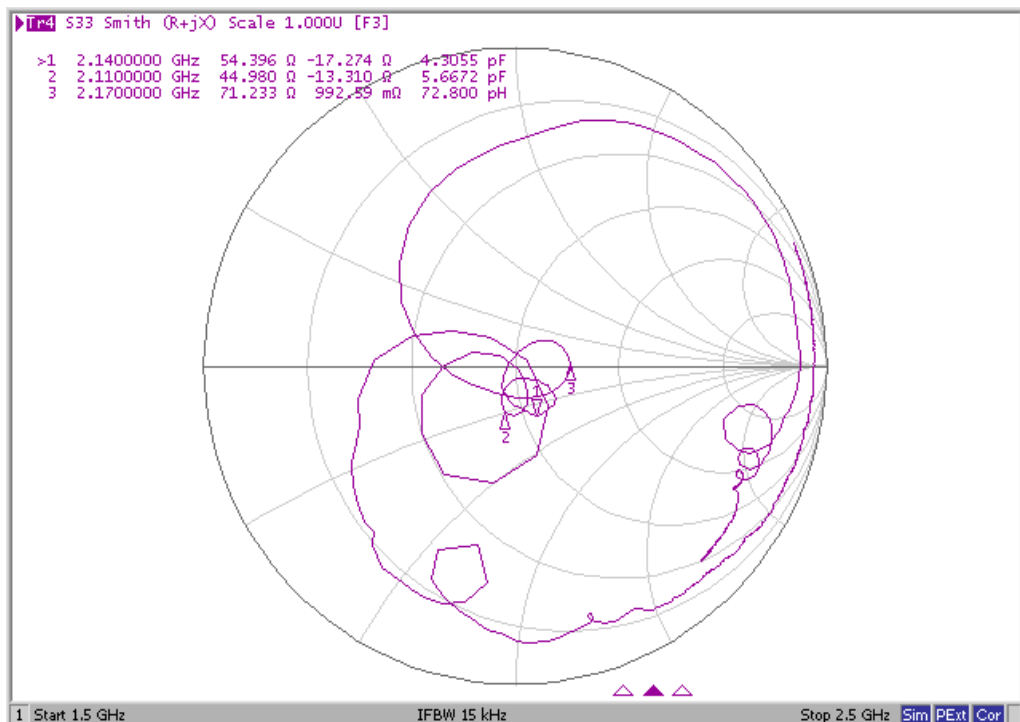
Smith Chart (Tx Port)



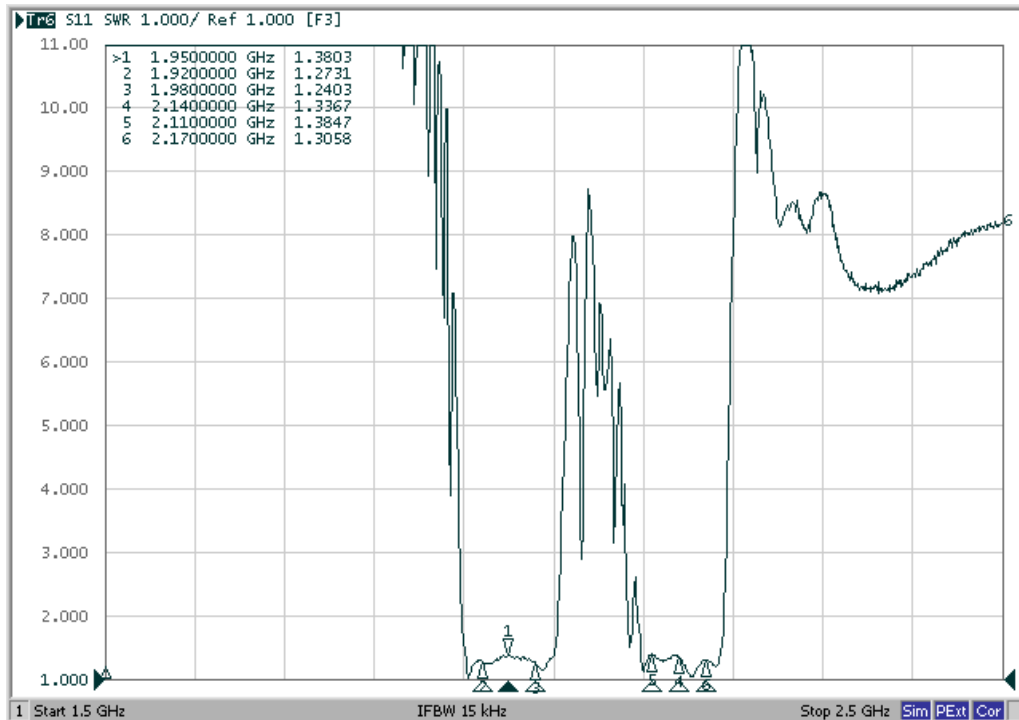
VSWR (Rx Port)



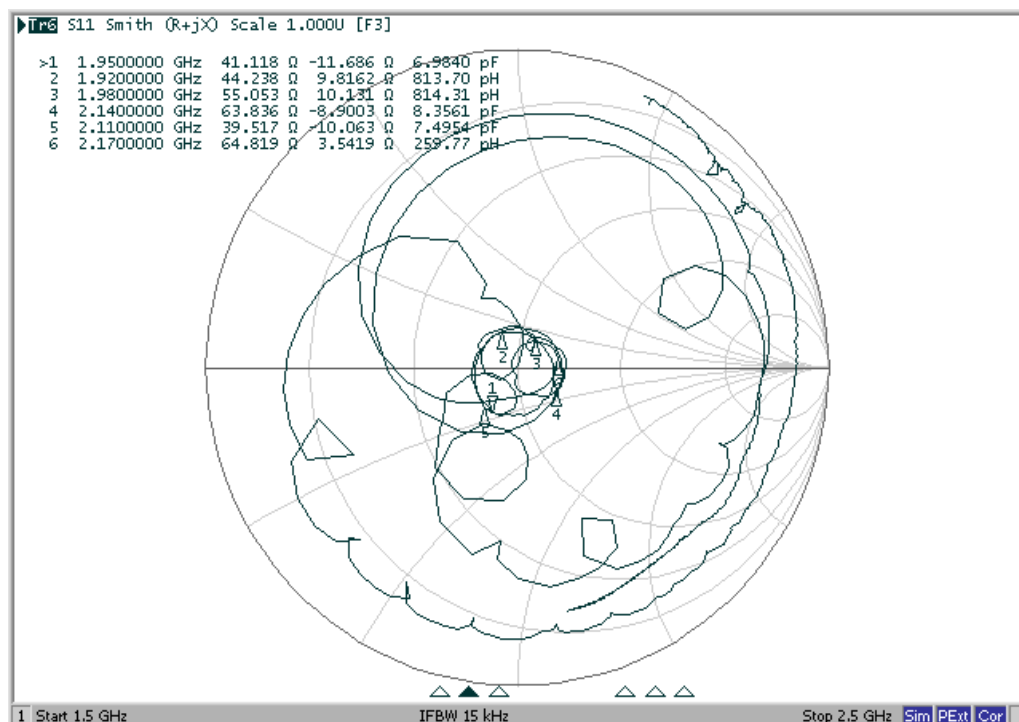
Smith Chart (Rx Port)



VSWR (ANT Port)



Smith Chart (ANT Port)





Wide Span

